AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

1-19 (Canceled)

20. (New) A process for producing dicarboxylic acids by oxidation with oxygen or a gas containing oxygen of a cycloaliphatic hydrocarbon in the presence of an oxidation catalyst and of an oxidation solvent that is lipophilic in nature, comprising the step of extracting the dicarboxylic acids formed in the oxidation step by carrying out, in liquid phase, an extraction of the diacids using a first extraction solvent in which at least the oxidation solvent and the cycloaliphatic hydrocarbon are insoluble.

21. (New) A process according to Claim 20, wherein the oxidation solvent that is lipophilic in nature is a monocarboxylic acid.

22. (New) A process according to Claim 20, wherein the extraction of the diacids is carried out in a countercurrent-flow liquid/liquid extraction column.

23. (New) A process according to Claim 20, wherein the reaction medium derived from the oxidation step is fed into the extraction step under given temperature and pressure conditions so as to maintain the cycloaliphatic hydrocarbon in the liquid state.

24. (New) A process according to Claim 20, wherein the extraction of the diacids is carried out under given temperature and pressure conditions so as to

maintain the cycloaliphatic hydrocarbon in the liquid state.

25. (New) A process according to Claim 20, wherein the first extraction solvent is a polar solvent which is water or an alcohol.

26. (New) A process according to Claim 25, wherein the first extraction solvent is water.

27. (New) A process according to Claim 20, further comprising the addition of a second extraction solvent to the extraction step, said second extraction solvent being non-miscible with the first extraction solvent, and not solubilizing the diacids formed.

28. (New) A process according to Claim 27, wherein the first and the second extraction solvents are fed into the countercurrent extraction column.

29. (New) A process according to Claim 27, wherein the second extraction solvent is an acyclic hydrocarbon, a cyclic hydrocarbon, a saturated hydrocarbon, or an aromatic hydrocarbon.

30. (New) A process according to Claims 27, wherein the second extraction solvent is the cycloaliphatic hydrocarbon to be oxidized.

31. (New) A process according to Claim 22, wherein the oxidation medium is fed into the extraction column at an intermediate position between the two ends of the column.

32. (New) A process according to claim 20, wherein the hydrocarbon is a cycloalkane.

33. (New) A process according to claim 20, wherein the cycloalkane is

cyclohexane or cyclododecane.

34. (New) A process according to claim 20, wherein the solvent is a monocarboxylic acid that is lipophilic in nature, having from 7 to 20 carbon atoms.

35. (New) A process according to claim 20, wherein the lipophilic acid is hexanoic acid, heptanoic acid, octanoic acid, 2-ethylhexanoic acid, nonanoic acid, decanoic acid, undecanoic acid, dodecanoic acid, stearic acid (octadecanoic acid), 2-octadecylsuccinic acid, 1,5-ditert-butylbenzoic acid, 4-tert-butylbenzoic acid, 4-octylbenzoic acid, tert-butyl hydrogen orthophthalate, a naphthenic acid substituted with alkyl group, a anthracenic acid substituted with alkyl groups, a substituted derivatives of a phthalic acid, or a fatty diacid.

36. (New) A process according to claim 20, wherein the catalyst is a transition metal.

37. (New) A process according to Claim 36, wherein the catalyst is based on manganese in combination with a co-catalyst which is cobalt, chromium, zirconium, hafnium or iron alone or in combination.

38. (New) A process according to claim 20, wherein the dicarboxylic acids produced are adipic acid, succinic acid, glutaric acid, dodecanedioic acid or a mixture thereof.